

1. Scope

This specification applies to unitized structural crossarms for deadending or double deadending energized electrical distribution conductors on round or flat wood, steel or concrete electrical power poles.

2. References

Except as modified herein, these crossarms shall meet the applicable requirements of the following standards. When the following standards are superseded by an approved revision, the revision shall apply.

Industry Standards	
ASTM A36	Standard Specification for Carbon Structural Steel
ASTM A153	Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASTM A220	Standard Specification for Pearlitic Malleable Iron
ASTM B308	Standard Specification for Aluminum-Alloy 6061-T6 Standard Structural Profiles
District Standards	
Dist. Mat. Std. 872657.1	Fiberglass Tangent Crossarms

3. Length, Load Ratings, Number of Positions and Material ID Numbers

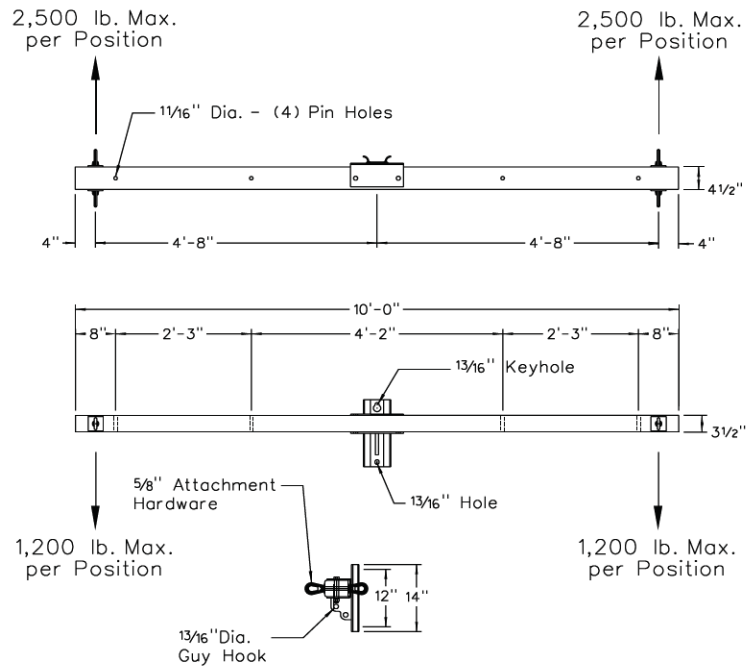
Material ID	Nominal Length	Conductor Positions	Load Ratings
872615	10'	2	2,500 lb/pos
1001822	10'	4	4,500 lb/pos
872623	13'	6	2,500 lb/pos
1001820	13'	6	4,500 lb/pos
1002156	15'	6	2,500 lb/pos
1002157	15'	6	4,500 lb/pos

Table 1

4. Physical Characteristics

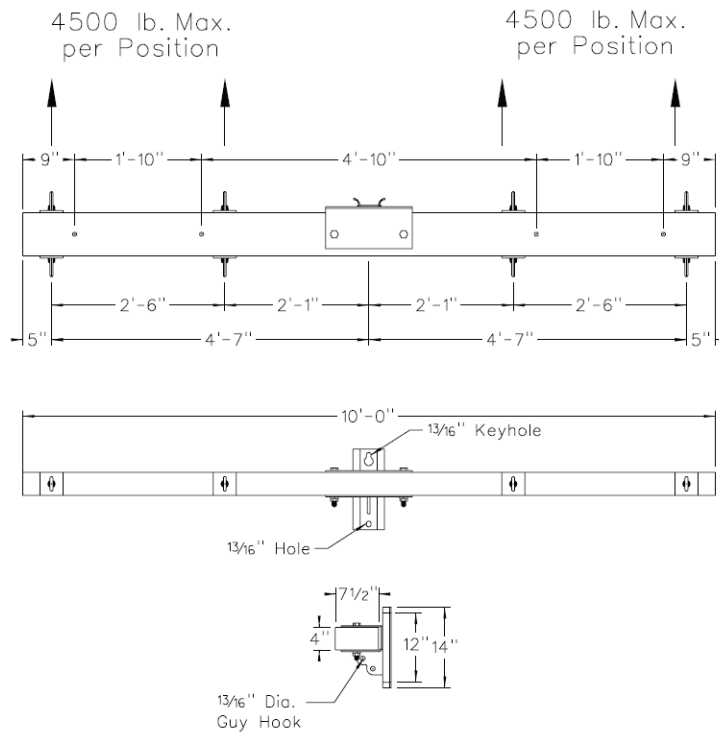
4.1 Light Duty 10' Unitized Crossarm (MID 872615)

Light duty 10' unitized crossarm and mounting bracket shall be drilled and dimensioned per the following drawing:



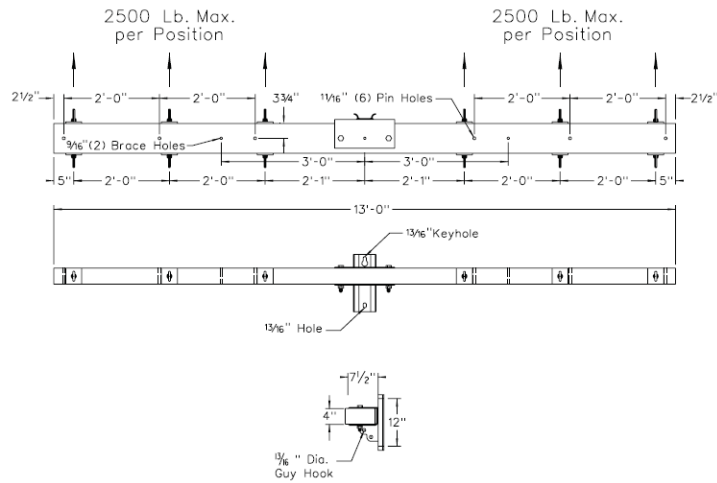
4.2 Heavy Duty 10' Unitized Crossarm (MID 1001822)

Heavy duty 10' unitized crossarm and mounting bracket shall be drilled and dimensioned per the following drawing:



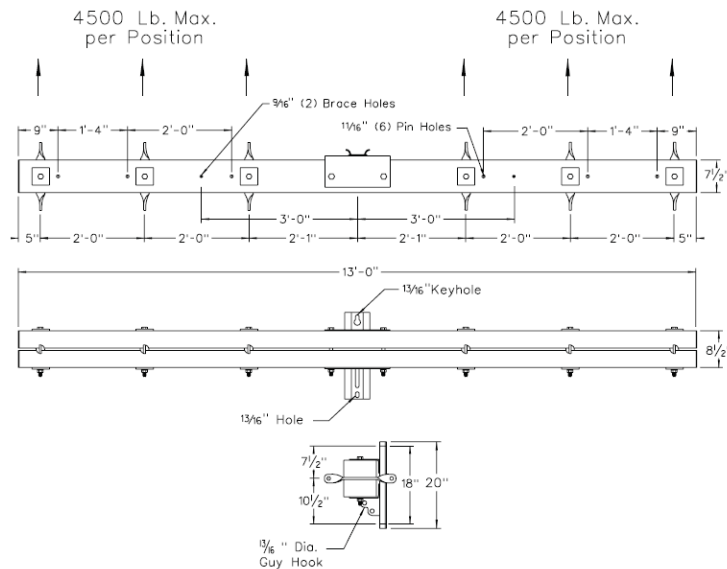
4.3 Medium Duty 13' Unitized Crossarm (MID 872623)

Medium duty 13' unitized crossarm and mounting bracket shall be drilled and dimensioned per the following drawing:



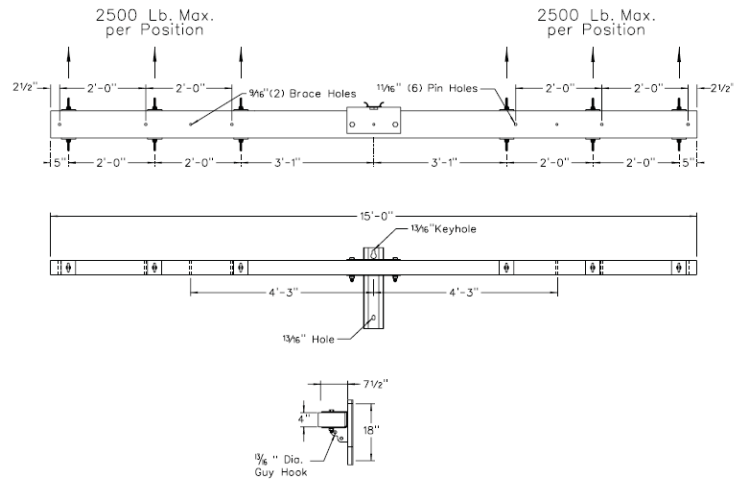
4.4 Heavy Duty 13' Unitized Crossarm (MID 1001820)

Heavy duty 13' unitized crossarm and mounting bracket shall be drilled and dimensioned per the following drawing:



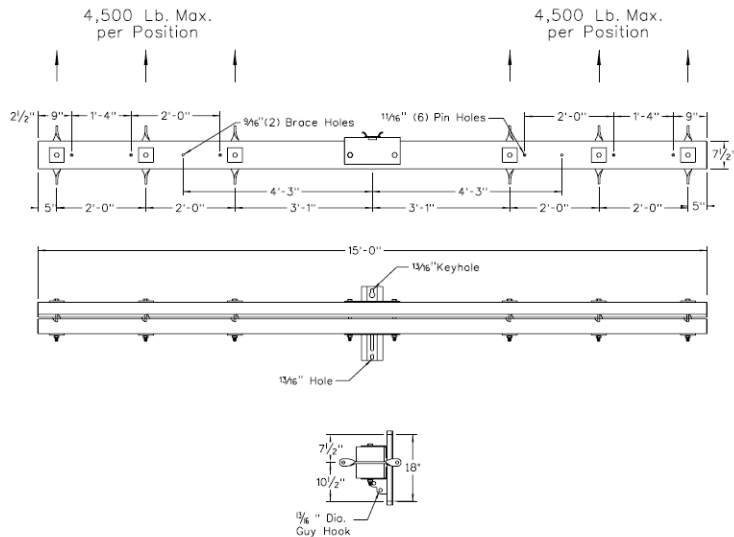
4.5 Medium Duty 15' Unitized Crossarm (MID 1002156)

Medium duty 15' unitized crossarm and mounting bracket shall be drilled and dimensioned per the following drawing:



4.6 Heavy Duty 15' Unitized Crossarm (MID 1002157)

Heavy duty 15' unitized crossarm and mounting bracket shall be drilled and dimensioned per the following drawing:



5. Construction

5.1 Strength Members

Unitized crossarm strength members shall be pultruded fiberglass. Strength members may not be steel, aluminum, or any other conductive material. Pultruded fiberglass crossarms shall conform to all applicable requirements of District Material Standard 872657.1, latest revision.

5.2 Mounting Bracket

Crossarm mounting brackets shall be manufactured from high strength heat treated aluminum alloy, hot dip galvanized structural steel plate or hot dip galvanized ductile iron. All bolts, nuts and other hardware shall be hot dip galvanized. Mounting brackets shall be designed for installation on wood, steel, concrete or fiberglass poles with round or flat mounting surfaces. Minor variations to mounting bracket details may be acceptable with prior District approval.

6. Mechanical Characteristics

6.1 Working Strength

Loading requirements for unitized crossarms are listed below:

6.2 Maximum Allowable Deflection

Maximum allowable deflections for unitized crossarms subject to working loads shall not exceed the values listed in Table 2.

6.3 Creep Strength

Subject to the working loads listed in Table 2, long term plastic deformation (Creep) shall not exceed 1% in 100,000 hours.

Material ID	No. of Loaded Positions	Max. Allowable Deflection	Working Load per Position
872615	2	2"	2,500 lb/pos
1001822	4	2"	4,500 lb/pos
872623	6	3"	2,500 lb/pos
1001820	6	3"	4,500 lb/pos
1002156	6	3"	2,500 lb/pos
1002157	6	3"	4,500 lb/pos

Table 2

7. Identification

Each unitized crossarm shall be permanently marked with the manufacturer's name or logo and date of manufacture.

8. Packaging

Unitized crossarms shall be shipped fully assembled with mounting brackets and deadending hardware.